



The evolution of farm structures in Europe: did '*concentration*' mean '*homogenization*'?

AEIAR 50th anniversary – Brussels, September 7-8, 2016

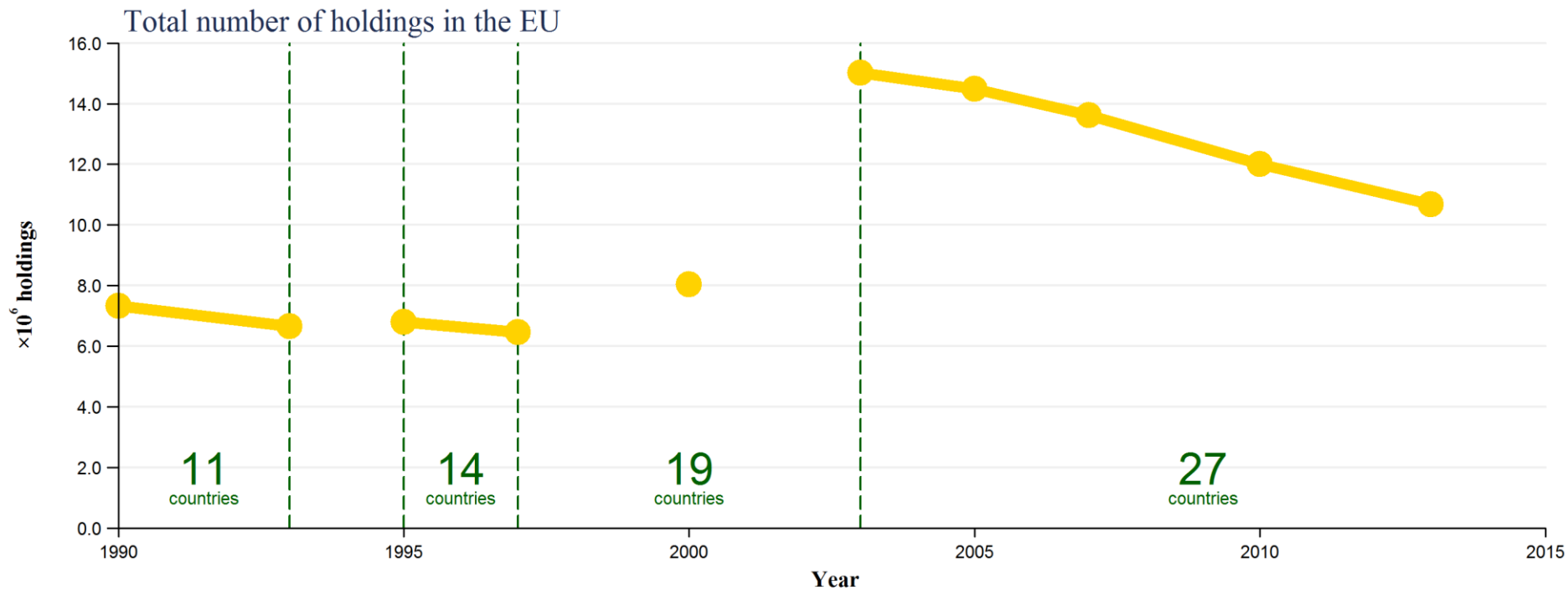


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'Concentration': a dual trend

Fewer farms

❖ - 4 340 000 holdings (-29%) over the last decade (2003-2013)



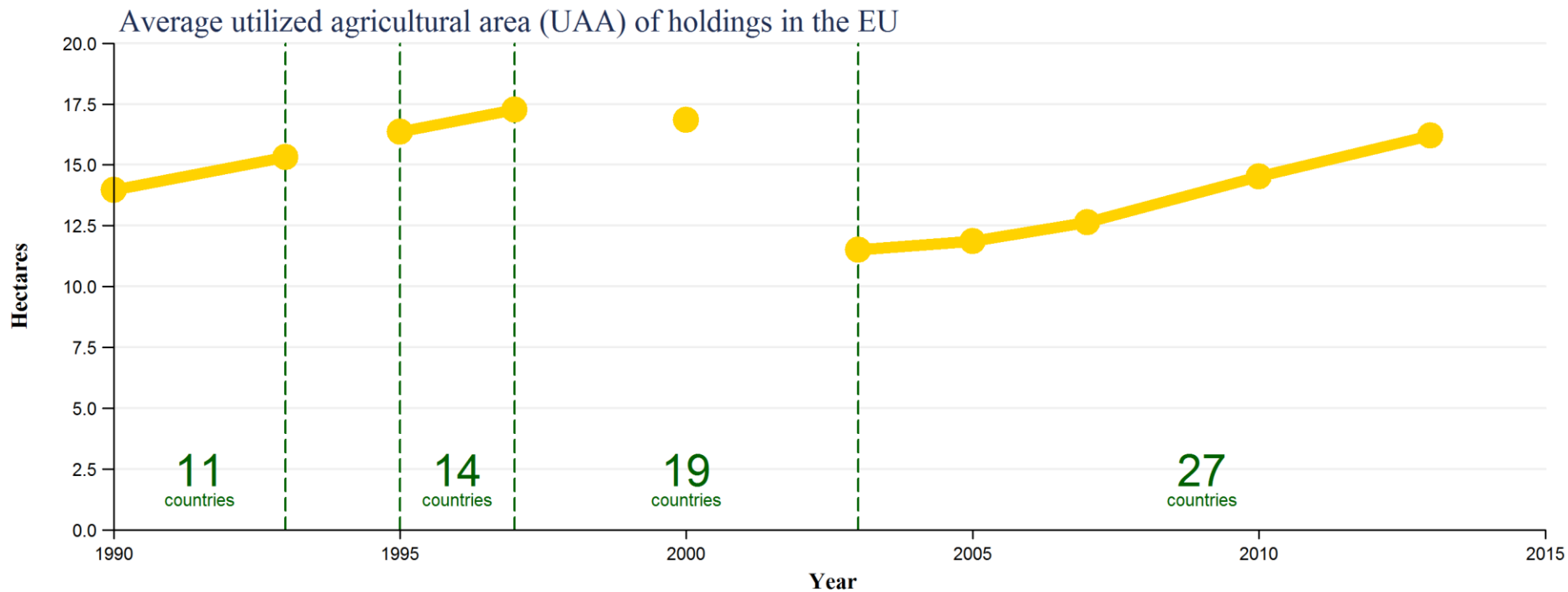
Note: 2013 data are provisional

Source: Farm Structure Survey (FSS) 1990-2013p, Eurostat - author's own calculations - all farms

'Concentration': a dual trend

Larger farms

❖ + 4.7 ha / holding (+41%) over the last decade (2003-2013)



Note: 2013 data are provisional

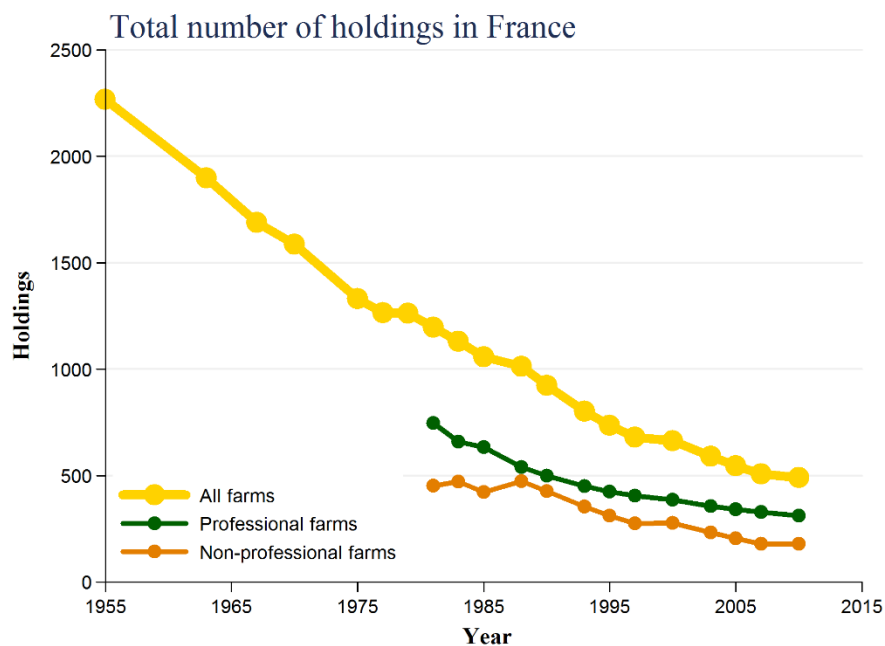
Source: Farm Structure Survey (FSS) 1990-2013p, Eurostat - author's own calculations - all farms

A long-term trend

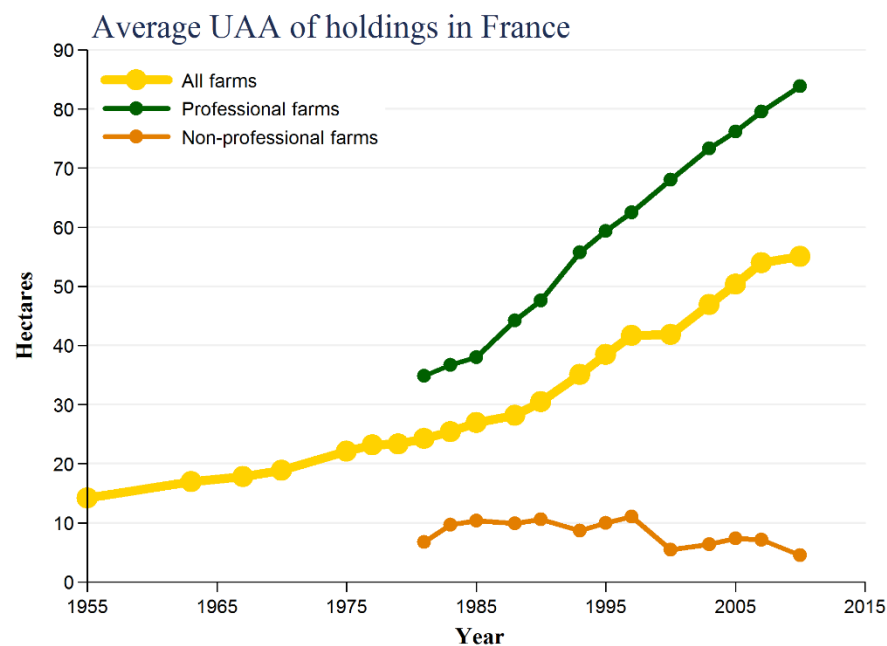
At least in the 'old member States' (OMS)

Example for France

- ❖ Farm number: divided by **more than 5** between 1955 and 2010
- ❖ Farm size: multiplied by **almost 4** between 1955 and 2010



Source: : RA-ES 1955-2010 and RICA 1981-2010, MinAgri/SSP - author's own calculations

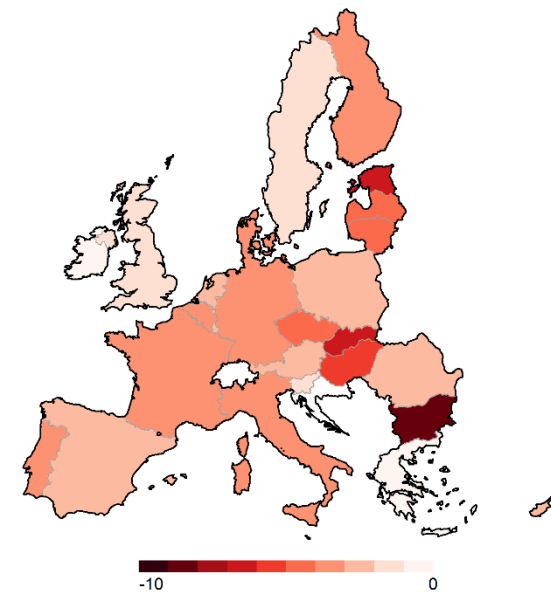
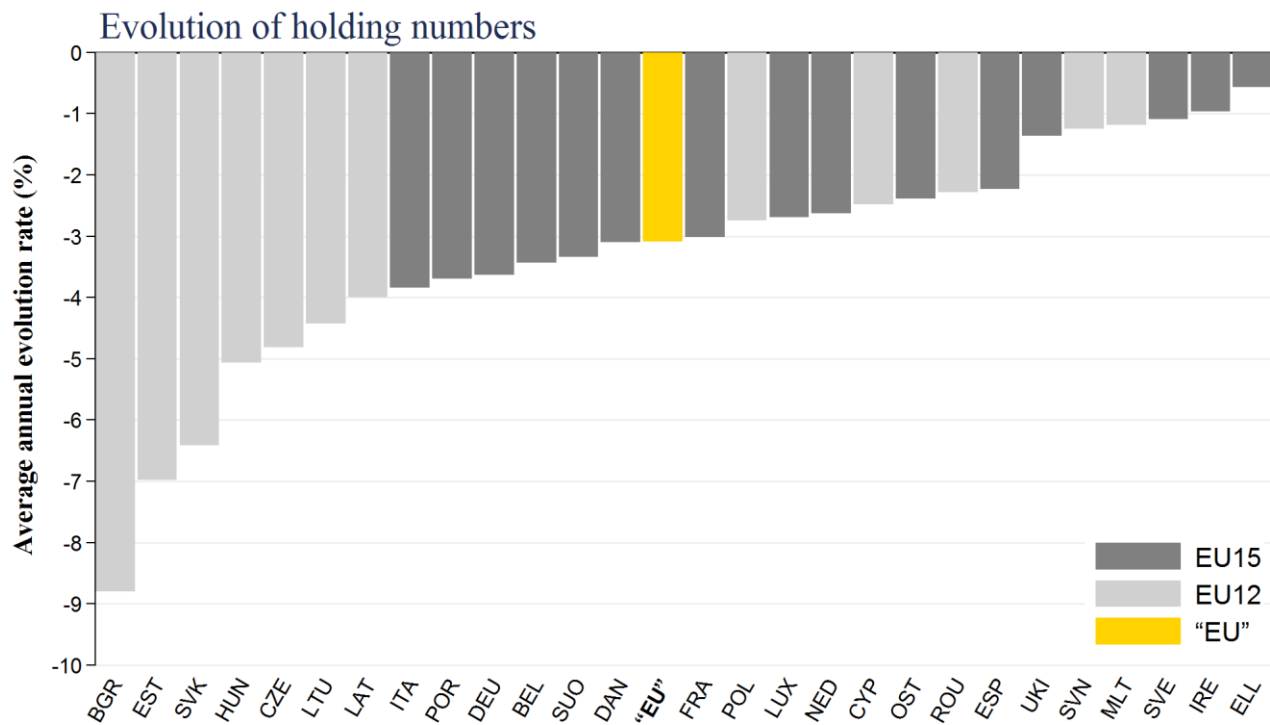


Source: : RA-ES 1955-2010 and RICA 1981-2010, MinAgri/SSP - author's own calculations

A general tendency all over the EU

In terms of farm numbers...

- ❖ Stronger decrease in the 'new member States' (NMS) on average

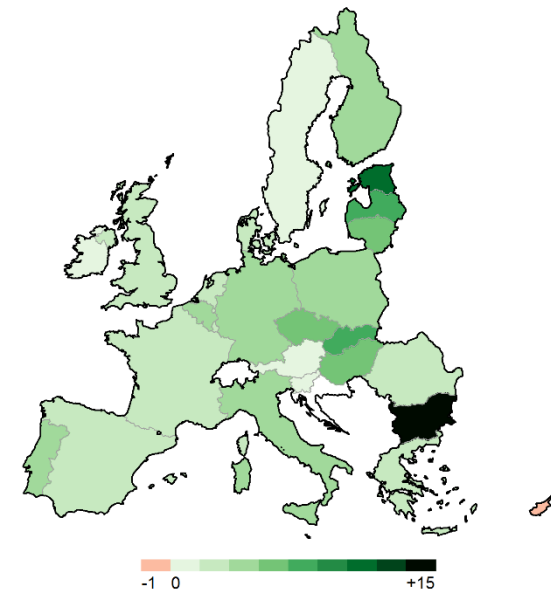
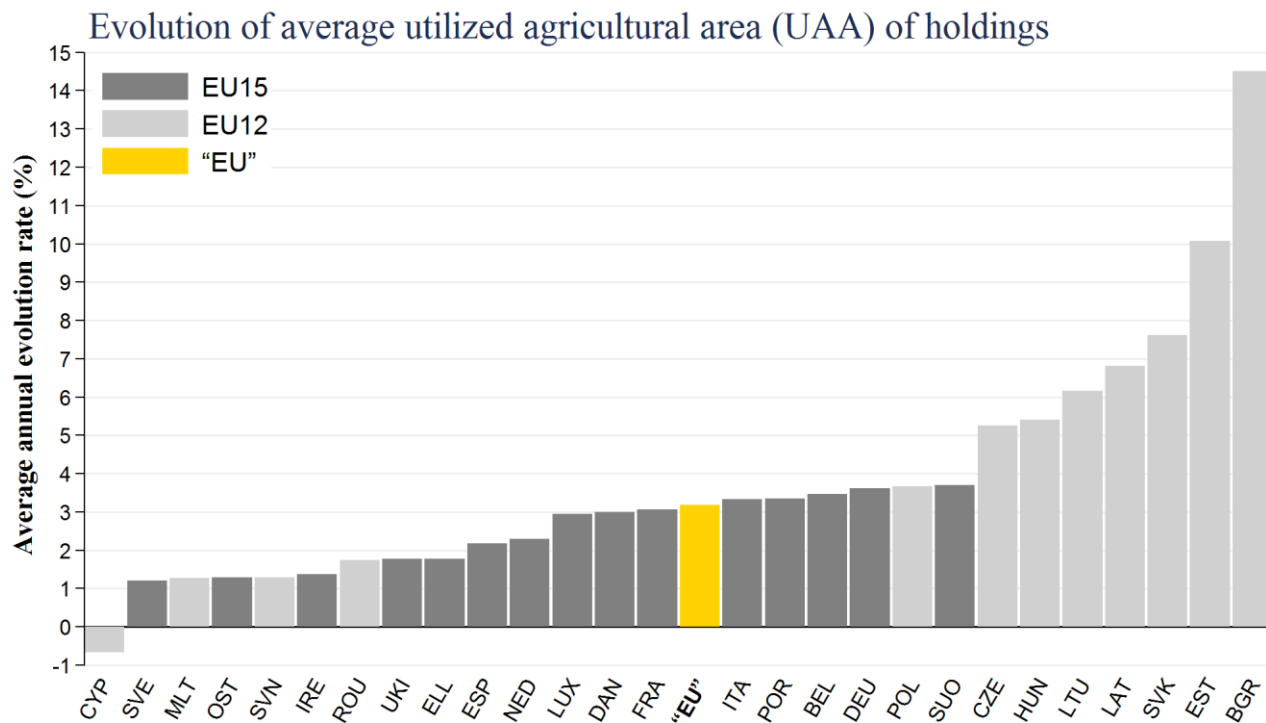


Source: Farm Structure Survey (FSS) 1990-2013p, Eurostat - author's own calculations - all farms

A general tendency all over the EU

... as well as farm sizes

❖ Stronger **increase** in the NMS on average



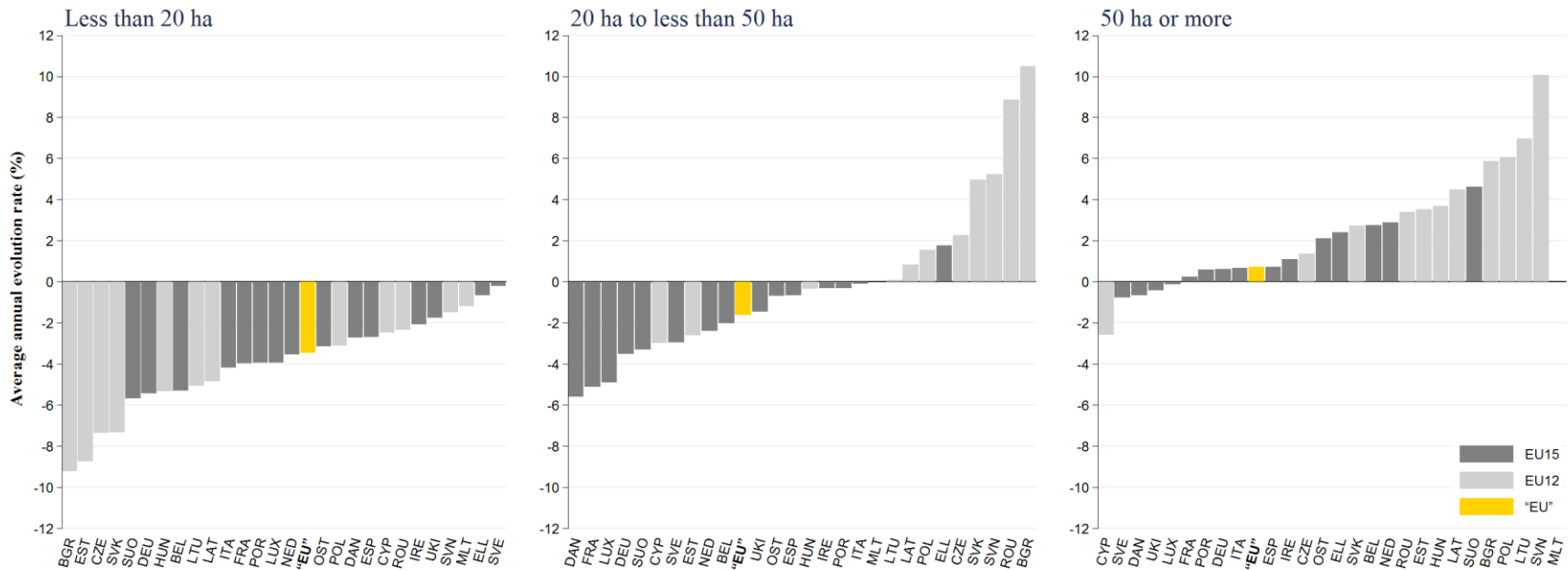
Source: Farm Structure Survey (FSS) 1990-2013p, Eurostat - author's own calculations - all farms

But different trends depending on the initial size

Beyond the average: farm numbers

- ❖ < 20 ha: fewer farms everywhere (esp. in the NMS)
- ❖ 20 to < 50 ha: fewer farms in the OMS, more farms in the NMS
- ❖ ≥ 50 ha: more farms almost everywhere (esp. in the NMS)

Evolution of holding numbers, by size category



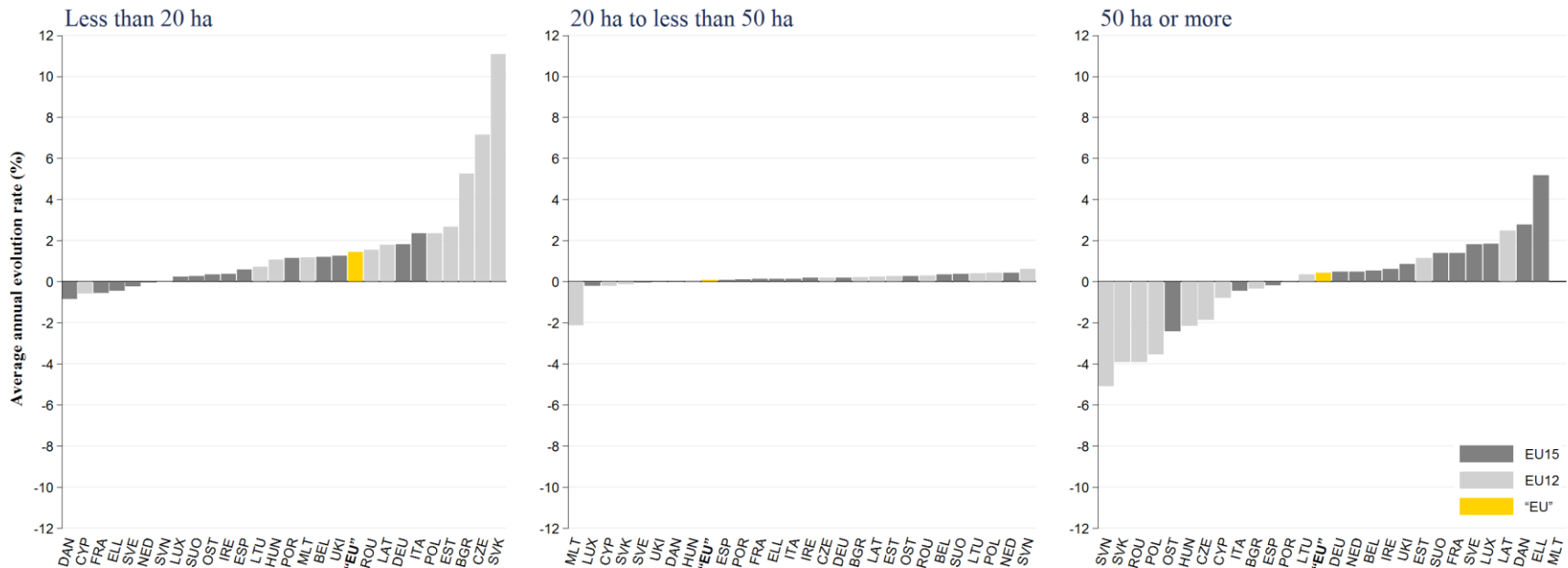
Source: Farm Structure Survey (FSS) 1990-2013p, Eurostat - author's own calculations - all farms

But different trends depending on the initial size

Beyond the average: farm sizes

- ❖ < 20 ha: larger farms almost everywhere (esp. in the NMS)
- ❖ 20 to < 50 ha: slightly larger farms almost everywhere
- ❖ ≥ 50 ha: larger farms in the OMS, smaller farms in the NMS

Evolution of average utilized agricultural area (UAA), by size category

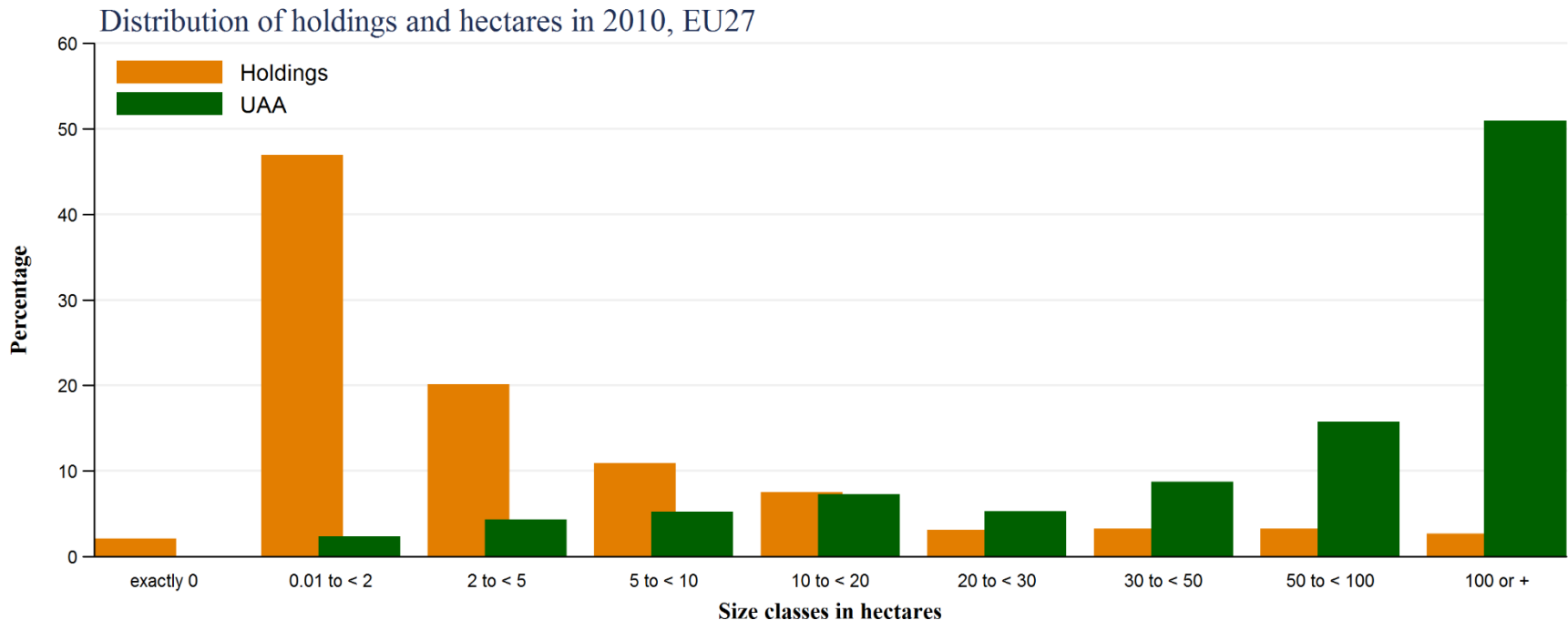


Source: Farm Structure Survey (FSS) 1990-2013p, Eurostat - author's own calculations - all farms

Did 'concentration' mean 'homogenization'?

'Homogenization': a reduction in the 'inequality' of sizes
Measuring 'inequality'

- ❖ A number of possible indicators
- ❖ Confronting the distribution of farms with that of hectares



Source: Farm Structure Survey (FSS) 1990-2013p, Eurostat - author's own calculations - all farms

The Gini index: a synthetic measure of inequality

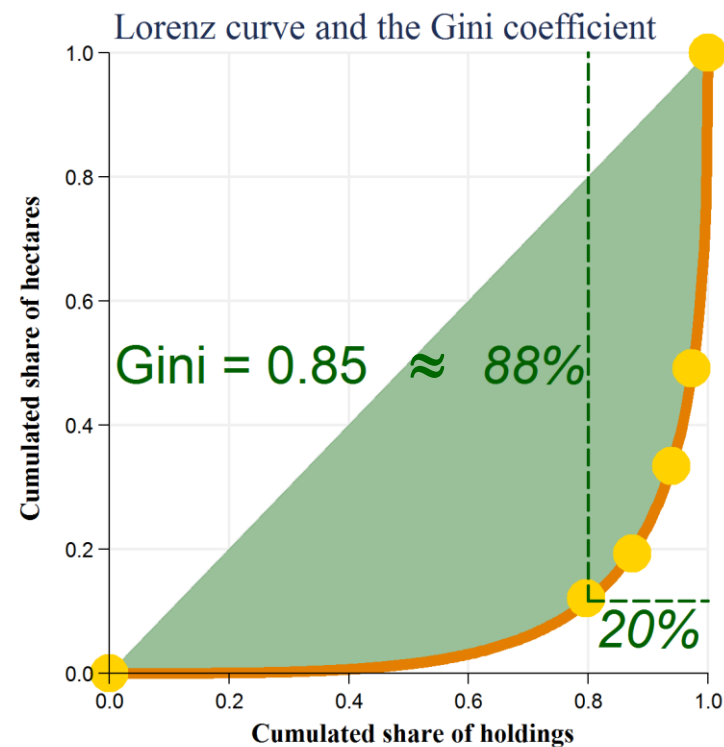
The Lorenz curve and the Gini coefficient

- ❖ Cumulated shares of hectares
- ❖ Cumulated shares of farms

An example: EU27 in 2010

Size (ha)	Holdings			Hectares		
	x1000	%	Σ%	x1000	%	Σ%
< 10	9 363	80	80	20 994	12	12
10 to < 20	903	8	88	12 663	7	19
20 to < 50	774	7	95	24 518	14	33
50 to < 100	392	3	98	27 451	16	49
≥ 100	325	2	100	88 873	51	100
Total	11 757	100		174 499	100	

Source: Farm Structure Survey (FSS) 1990-2013p, Eurostat – author's own calculations – all farms



Inequality: contrasted situations over the EU

'Moderate' inequality

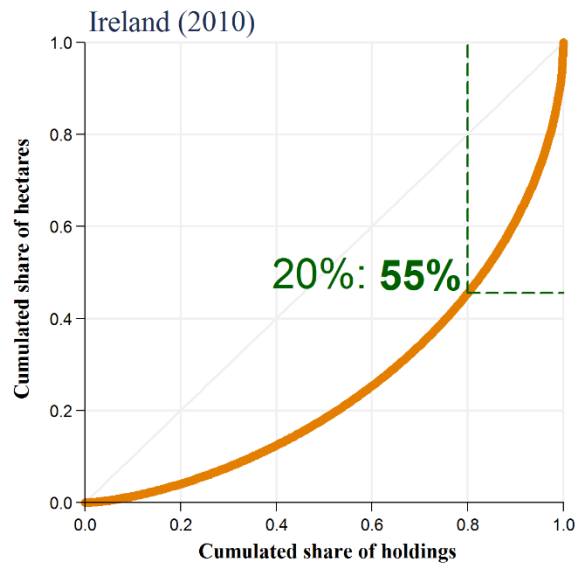
❖ **Ireland (2010):** 20% of the farms control **55%** of the hectares

'Average' inequality

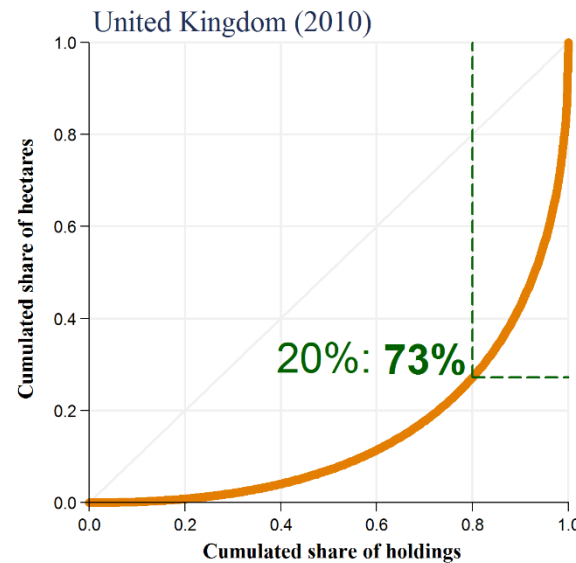
❖ **UK (2010):** 20% of the farms control **73%** of the hectares

'High' inequality

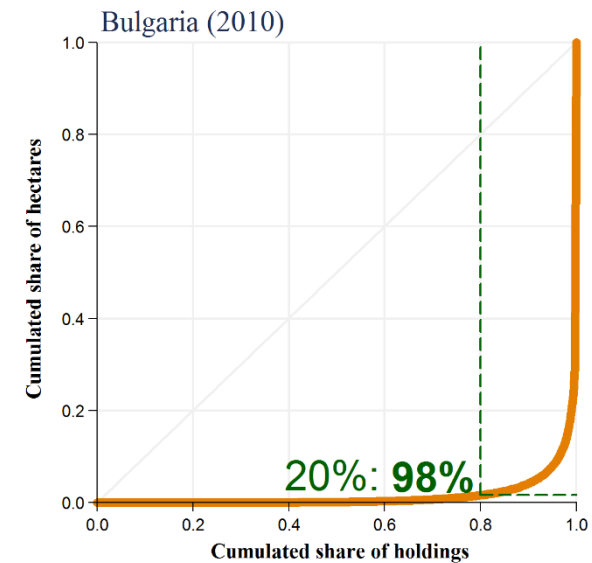
❖ **Bulgaria (2010):** 20% of the farms control **98%** of the hectares



Source: Farm Structure Survey (FSS) 1990-2013p, Eurostat - author's own calculations - all farms



Source: Farm Structure Survey (FSS) 1990-2013p, Eurostat - author's own calculations - all farms

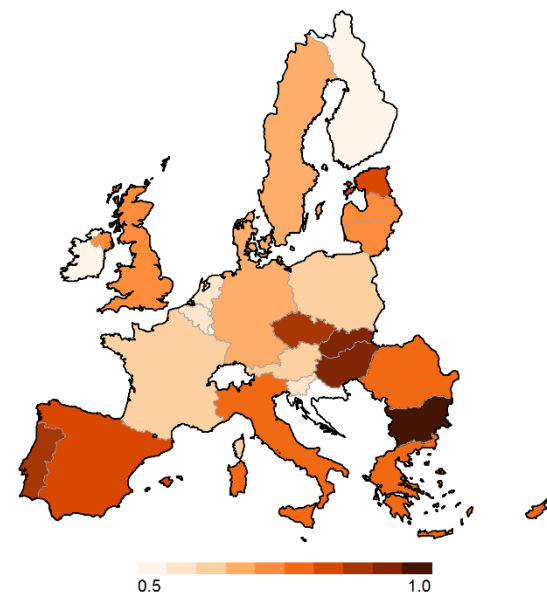
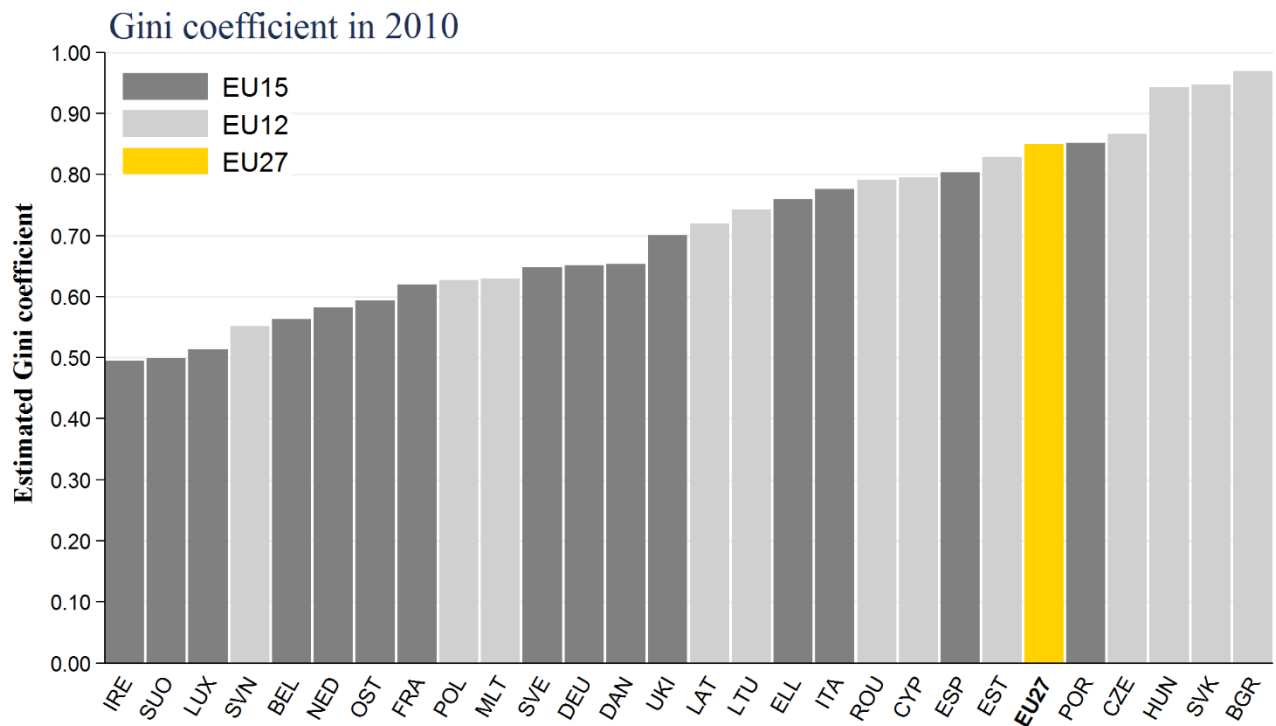


Source: Farm Structure Survey (FSS) 1990-2013p, Eurostat - author's own calculations - all farms

Inequality: contrasted situations over the EU

A higher inequality in the NMS

- ❖ **OMS** (2010, on average): 20% of the farms control **67%**
- ❖ **NMS** (2010, on average): 20% of the farms control **81%**



Source: Farm Structure Survey (FSS) 1990-2013p, Eurostat - author's own calculations - all farms

Inequality did not increase everywhere...

Small decrease

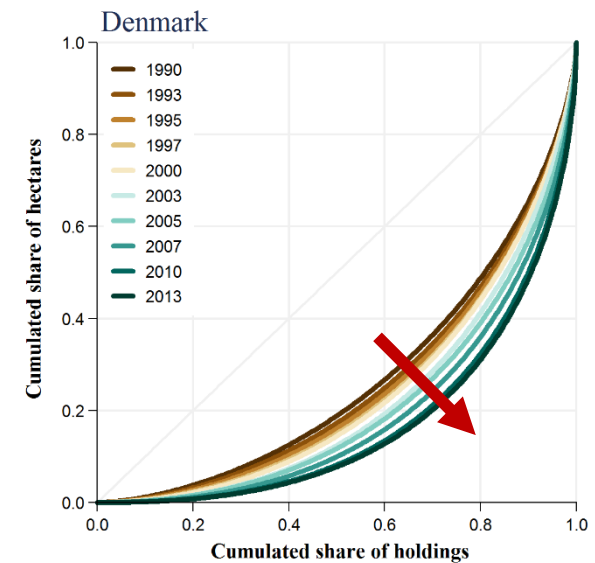
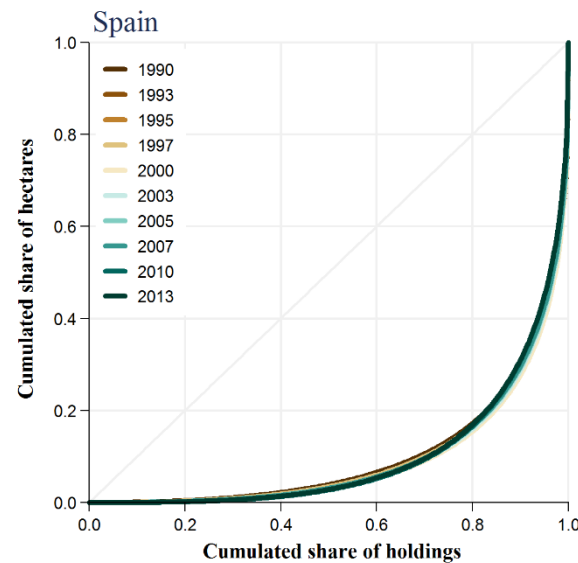
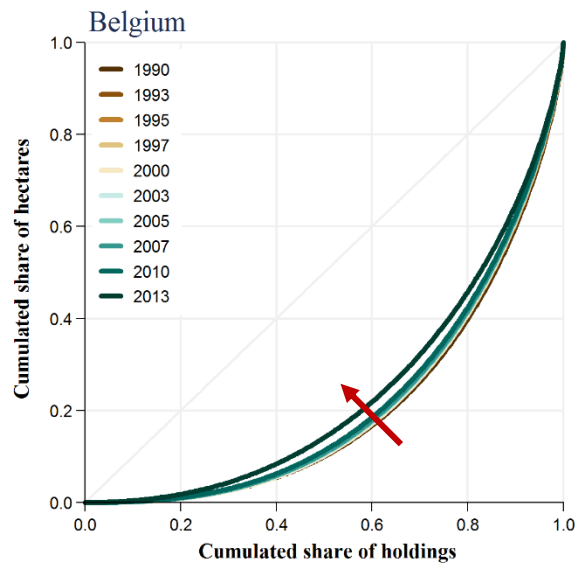
❖ **Belgium:** 20% of the farms control 60% in 1990 ► 54% in 2013

Stagnation

❖ **Spain:** 20% of the farms control 83% in 1990 ► 83% in 2013

Large increase

❖ **Denmark:** 20% of the farms control 51% in 1990 ► 69% in 2013



Source: Farm Structure Survey (FSS) 1990-2013p, Eurostat - author's own calculations - all farms

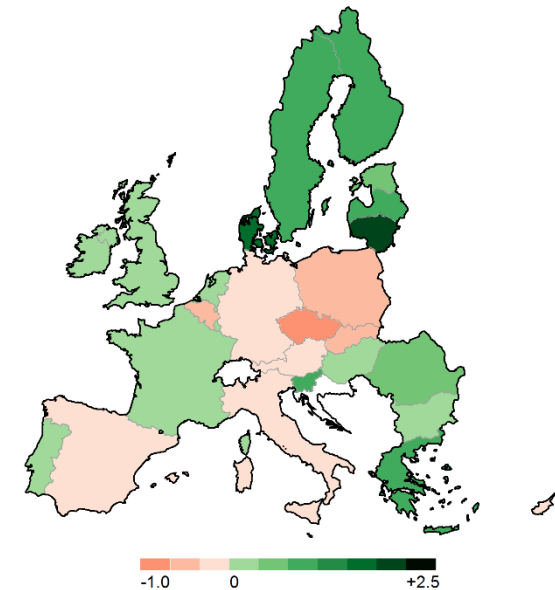
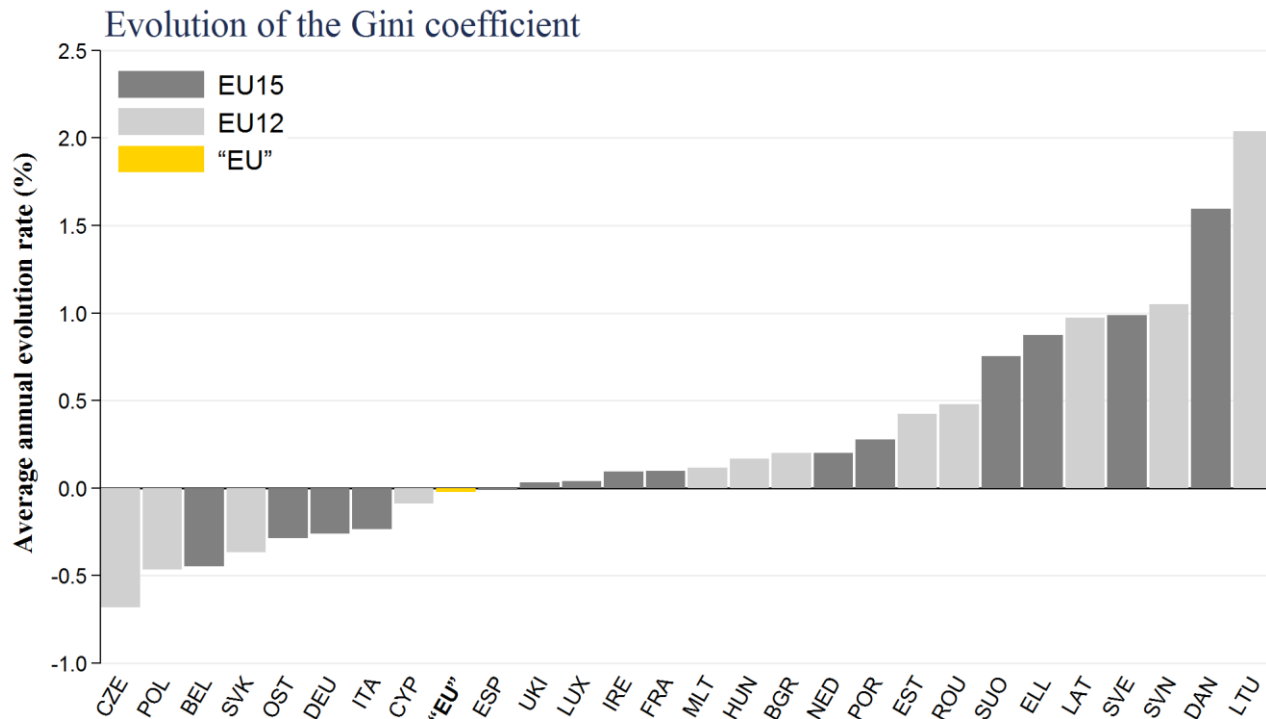
Source: Farm Structure Survey (FSS) 1990-2013p, Eurostat - author's own calculations - all farms

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... but inequality increased in most MS

‘Homogenization’ is not the common rule

- ❖ Increase in **19 member States out of 27** (70%)
- ❖ No systematic/significant difference between OMS and NMS



Source: Farm Structure Survey (FSS) 1990-2013p, Eurostat - author's own calculations - all farms

What are the drivers of inequality evolution?

A French case-study

- ❖ Over 1970-2007, all farms, at the 'département' (NUTS3) level
- ❖ 20% of the farms controlled 52% in 1970 ► 54% in 2007
- ❖ Non policy drivers
- ❖ **Policy drivers**

Time trend ('all other drivers')
Price of arable land
Agricultural income per farmer
Initial inequality
Share of agricultural land in total land

Early retirement policy

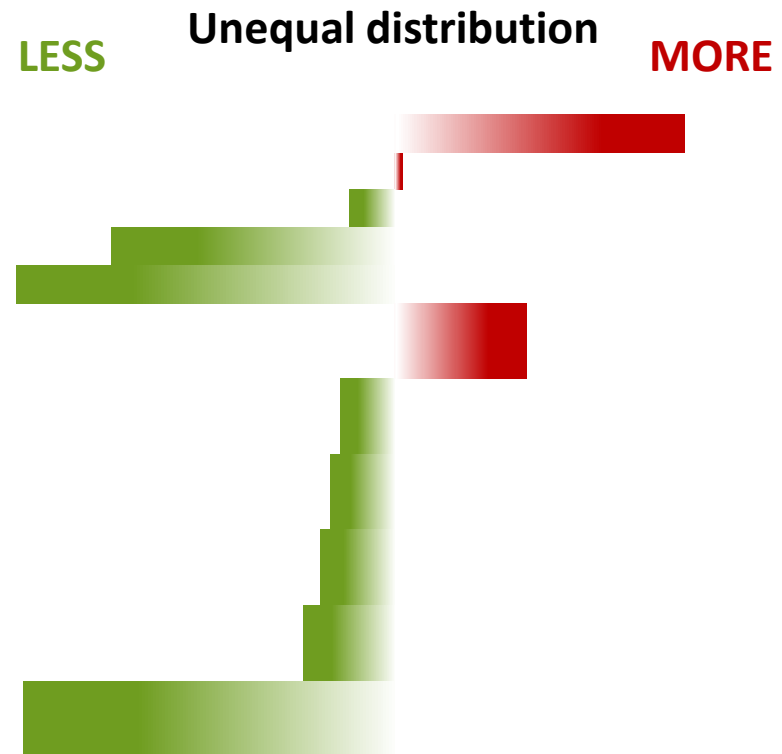
Milk quotas

Agro-environment and LFA measures

CAP First pillar direct support

New settlement grants

SAFER's activity



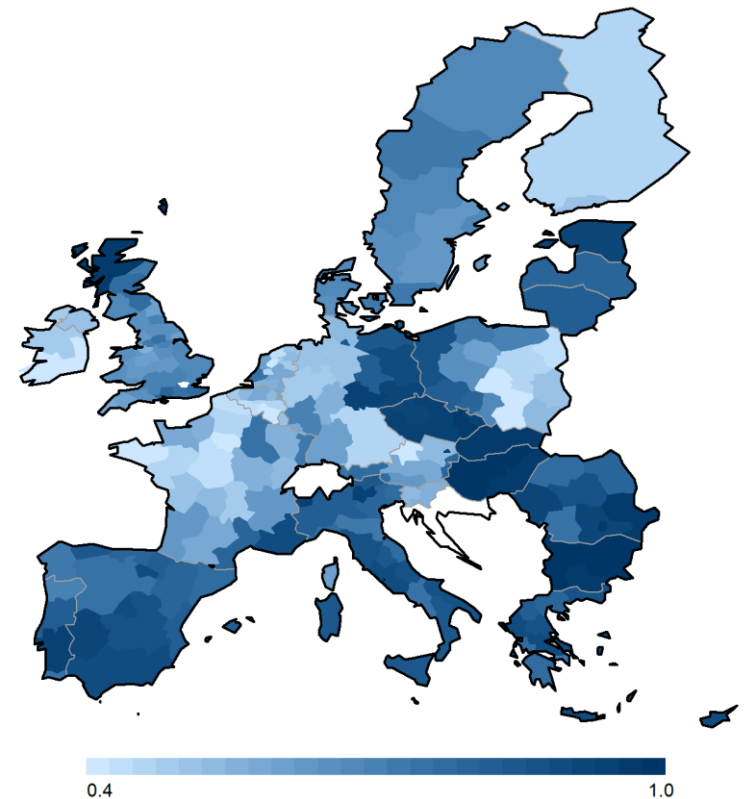
Source : Piet et al. (2012). *European Review of Agricultural Economics*, Vol. 39(1) pp. 5–28

What are the drivers of inequality evolution?

On-going research at the EU level

- ❖ Over 1990-2013, all farms, at the NUTS2 level
- ❖ Several inequality indicators
 - Gini coefficient
 - Herfindahl-Hirschman index
 - hectare-weighted median
 - etc.
- ❖ But (too?) few driver variables in the Eurostat 'regional' database...
 - especially as regards the structure and land related policies

Gini coefficient at the NUTS2 level, 2010



Source: Farm Structure Survey (FSS) 1990-2013p, Eurostat - author's own calculations - all farms

Wrapping-up...

An overall movement towards fewer and larger farms

But '*concentration*' did not (always) mean '*homogenization*'

Farm structures remain diverse

In some countries, '*inequality*' remained fairly stable

For example, we found that, for France:

- (most) public policies played a moderating role
- especially the one aimed at regulating the land market (SAFER)

But do not generalize too fast!

Are such policies (still) relevant/efficient?



Thank you for your attention!

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